**IT Applications Unit 3, AOS 1, Online Communities**

1. Complete the following, from pgs, 28- 32: **Transmission media**

**Networks are classified according to below and we will study the following:**

1. Network Categories: LAN, WAN
2. Network Architecture, client-server; peer-to-peer; internet peer-to-peer; intranet
3. Network communication standards
4. Network hardware and software
5. **Transmission media**
6. Network security

**Transmission media**

**Physical Transmission**

**Twisted – pair cable**

1. What is twisted pair cable?
2. Why do new networks use CAT 5E or CAT 6 rather than CAT 3?
3. What are some disadvantages of CAT 5E and why is it used in so many installations?
4. What type of networks is this cable largely used in?

**Coaxial Cable**

1. Describe the characteristics of this cable.
2. What network is it used in?

**Fibre-optic cable**

1. Describe the characteristics of this cable.
2. Why is fibre-optic cable often used to connect major switches inside buildings as well as between buildings.
3. What are the disadvantages of this cable?

**Wireless Transmission,** p 30

**Radio Waves**

1. What is required for radio transmissions to occur?
2. Wi-Fi networks use radio waves. What are its advantages over a cable network and what are its disadvantages?
3. Describe the characteristics of Bluetooth.

**Microwaves**

1. Describe the characteristics of microwave transmission.
2. What are the limitations of microwave transmission?

**Satellite**

1. Satellite transmission can be in what forms?
2. What are the limitations of this form of transmission?
3. Who might use this form of transmission?

**Infra-red**

1. Describe the characteristics of infra-red transmission.
2. Why is radio wireless networking preferable to infra-red wireless networking?